Electric Power Supply Association
Advocating the power of competition

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The Honorable John D. Dingell
Chairman, Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Rick Boucher
Chairman, Subcommittee on Energy and Air Quality
2187 Rayburn House Office Building
Washington, DC 20515

Dear Chairmen Dingell and Boucher:

Thank you for your letter dated February 27, 2007. The Electric Power Supply Association (EPSA) appreciates the opportunity to contribute to the Committee on Energy and Commerce's deliberations on climate change legislation. EPSA supports enactment of comprehensive, mandatory federal legislation to require steps to minimize the impact of greenhouse gases on the environment, consistent with the principles we have developed and will discuss in this letter. Climate change policies are being developed now, and EPSA companies are an important part of the solution.

Global climate change and how to limit or offset man-made emissions of greenhouse gases (GHG) are critical issues confronting policymakers. Domestically and internationally, policymakers are acting now to regulate GHG emissions. Regulatory and legislative processes are moving forward seriously and with speed. In the United States, state and regional initiatives are already being implemented to impose mandatory near-term requirements on the electric industry. It is critical that the competitive power sector be fully involved in the national policy-making process.

EPSA is the national trade association that represents competitive power suppliers, including generators and marketers. The competitive sector operates a diverse portfolio of technologies that represents 40 percent of the installed electric generating capacity in the United States. Competition in the electric power industry promotes increased efficiency and technological innovation – both of which are critical to effective GHG reduction strategies. Competitive power suppliers are directly responsible for the development of efficient combined cycle natural gas-fired combustion turbines and combined heat and power plants, the more effective operation of nuclear and coal facilities, and the construction and operation of a wide range of renewable energy technologies (e.g., biomass, geothermal, hydro, landfill gas, solar, waste energy, and wind). Each of these fuel sources has an important role to play in meeting future electricity needs while achieving the nation's environmental goals.

Our nation is addressing climate change at a time when it needs significant investment in new generation to meet future projected demand. EPSA member companies are in the best position to successfully deploy new technologies while meeting environmental challenges. Competitive suppliers built almost all of the new power generation in the past decade, and are poised to do so again as the nation embarks on the largest investment in electric power infrastructure in its history. Our track record of efficiency and innovation – including the steps we already have taken to address GHG emissions – makes us a fundamental part of any national program to address this issue.

EPSA, as an association of diverse member companies, does not have a detailed position on every question which you have asked. We have endeavored to answer your questions as fully as we are able to at this time. Although we have not taken a position on any bill as yet, we appreciate the opportunity to comment and look forward to working further on this subject as you develop legislation. These answers represent the position of EPSA as an organization, but not necessarily the views of any particular member with respect to any issue.

1. Please outline which issues should be addressed in the Committee's legislation, how you think they should be resolved, and your recommended timetable for Congressional consideration and enactment. For any policy recommendations, please address the impacts you believe the relevant policy would have on:

(a) emissions of greenhouse gases and the rate and consequences of climate change; and

(b) the effects on the U.S. economy, consumer prices, and jobs.

Although we have not developed details on the timing and scope of legislation, we believe that greenhouse gas policies should be developed in a pragmatic manner that minimizes the economic impact associated with the cost of attaining reasonable emission levels in a timely manner. A national GHG policy should be designed and implemented in a manner that allows for the development and deployment of low- and no-carbon technologies to minimize economic dislocations while achieving a path towards sustainable levels of GHG emissions. It should also contain the flexibility to preserve reliability and fuel diversity. Drastic regulatory changes could degrade local reliability and result in dramatic increases in consumer costs. GHG emissions can be reduced while ensuring affordable energy and electric reliability, but the key is for policymakers to take into consideration the availability of economically viable technologies. Federal incentives should be quickly developed to promote the commercialization of new, low cost, carbon-free and low-carbon power generation technologies.

Any effects on the U.S. economy, consumer prices and jobs can best be optimized by harnessing the strengths of wholesale competitive electric markets to ensure that regulations are implemented in the most effective manner. Electric restructuring in many states has created an electricity market that includes both competitive and rate-regulated electric power companies. If, as is expected, GHG programs lead to substantial new investment and costs, it is critical for policymakers to realize that competitive companies have the best incentive to implement cost-effective solutions, because recovery is not guaranteed in a competitive market.

To help assure the level playing field needed to minimize the cost of new investment in all technologies across the nation, we strongly recommend that *all investment* face a competitive test, where cost overruns and other risks are borne by investors rather than customers. Under such a competitive test, new, cleaner power generation for the customers of rate-regulated companies would be procured either through bilateral negotiation between the rate-regulated utility and competitive power suppliers (where the price and other terms are established in advance) or as the result of an independently administered competitive solicitation open to the widest range of potential suppliers.

2. One particular policy option that has received a substantial amount of attention and analysis is "cap-and-trade." Please answer the following questions regarding the potential enactment of a cap-and-trade policy:

a. Which sectors should it cover? Should some sectors be phased-in over time?

The pace and scope of GHG regulation are critical to managing the cost of implementation. A broad effort, involving all sectors of the economy, would provide an optimal result by fostering the most economically beneficial policies to address climate change. However, policymakers may have to make adjustments to ensure that no one sector bears a disproportionate burden in reducing emissions. In general, broader and more uniform policies will result in better options for industry and lower costs to consumers. Similarly, although regional and state approaches may help influence a federal strategy, they are not as effective at addressing the issue as a single uniform national policy would be. Consequently, EPSA favors a federal policy to govern GHG reductions applicable to all states and regions.

h. Should early reductions be credited? If so, what criteria should be used to determine what is an early reduction?

Yes. It is vital that an accurate and measurable baseline from which reductions will be made is established in order to properly evaluate progress toward emissions goals. Early technical innovation and voluntary reductions of GHG should be encouraged as GHG regulations are phased in. This would include, for example, the use of GHG offset projects and carbon capture and storage. Federal programs should recognize well-documented recent domestic or international efforts to reduce GHG emissions taken in advance of mandatory programs. In addition, subsequent changes to GHG policies should provide a safe-harbor for environmentally beneficial investments already made.

l. Are there special features that should be added to encourage technological development?

Yes. Technological development should be encouraged through the use of markets. Competitive processes must form the backbone of increased federal support for research, development and deployment of new power generation technologies, which must be an essential part of any national GHG policy. This assistance should be available to all qualified parties and use solicitations or processes that provide for competition on price, timeliness, and efficacy in order to maximize their impact and consequent consumer benefits. We note that the Energy Policy Act of 2005 included numerous incentives for the development of new technologies to address greenhouse gases. It will be broadly beneficial for these programs to be fully funded and implemented promptly. Additional incentives should be quickly developed to promote the commercialization of new, low cost, carbon-free and low-carbon power generation technologies.

3. How well do you believe the existing authorities permitting or compelling voluntary or mandatory actions are functioning? What lessons do you think can be learned from existing voluntary or mandatory programs?

The history of the Clean Air Act Amendments of 1990 shows emphatically that market-based approaches would provide the most effective, least costly strategy for addressing greenhouse gas reduction. A market-based approach to address greenhouse gases can and should be designed to be environmentally effective, encourage new industry entrants and foster innovative technologies, without unduly penalizing current facilities that are needed to ensure a reliable and competitively priced supply of electricity. GHG policies should also encourage and support innovation and the commercialization of low cost, low carbon, and carbon-free technologies that can support U.S. competitiveness in a global economy, including renewables, nuclear, carbon sequestration, clean coal, and gasification using a variety of fuel sources.

The Clean Air Act's cap-and-trade programs have been successful for the control of NOx and SOx at large stationary sources, but would need to be modified for the most efficient application to GHG concerns.

Optimal GHG policies should extend beyond large, stationary sources. However, policymakers may have to make adjustments to ensure that no one sector bears a disproportionate burden in reducing emissions.

4. How should potential mandatory domestic requirements be integrated with future obligations the United States may assume under the 1992 United Nations Framework Convention on Climate Change? In particular, how should any U.S. domestic regime be timed relative to any international obligations? Should adoption of mandatory domestic requirements be conditioned upon assumption of specific responsibilities by developing nations?

To be truly effective, climate change must be addressed comprehensively and internationally. In the United States, the optimal approach would be a consistent, uniform policy that harmonizes with global efforts. Additionally, it is critical that any action taken in the United States maintains the global competitiveness of American industry and our national economy. Further, any U.S. program, including a cap-and-trade approach, should be capable of being integrated into a coherent and realistic international program, ideally on a global scale. Many EPSA members operate internationally, and are well-positioned to help coordinate national and international policy.

5. What, if any steps have your organization's members or its individual members taken to reduce their greenhouse gas emissions? Which of these have been voluntary in nature? If any actions have been taken in response to mandatory requirements, please explain which authority (State, Federal, or international) compelled them?

We have attached a list of some of the greenhouse gas reduction activities which our companies have taken.

Again, we appreciate the opportunity to participate as the committee develops greenhouse gas reduction legislation. We are confident that the members and staff of the committee will craft legislation which will enable our country's citizens and economy to move forward while protecting the environment.

Sincerely,

John Shelk

John E. Shelk
President and CEO, EPSA

cc: The Honorable Joe Barton, Ranking Member
Committee on Energy and Commerce

The Honorable J. Dennis Hastert, Ranking Member
Subcommittee on Energy and Air Quality

SOME EPSA MEMBER GREENHOUSE GAS REDUCTION EXAMPLES

- Clean coal technology

AES Eastern Energy, a subsidiary of the AES Corporation, and Praxair, Inc. plan to research and demonstrate improved carbon dioxide capture technologies for new and existing electric generation facilities in New York State. They will focus on opportunities to create capture-ready technology designs for new generation plants and low-cost retrofit options for existing generation facilities, including oxyfuel combustion of coal.

NRG Energy, Inc. is undertaking a joint initiative with GreenFuel Technologies Corporation (GreenFuel) and the New York State Energy Research and Development Authority to study carbon dioxide (CO_2) recycling. The technology takes the flue gas of a power plant and utilizes algae-bioreactor technology to effectively recycle CO_2 into commercially viable byproducts. The process harnesses the photosynthetic processes of algae to consume waste gases and heat from a power plant's air emissions stream, ultimately producing a high energy biomass. This means that in the presence of light, the single–celled algae take up CO_2 to produce the energy that fuels plant life – with a general rule of thumb being that two tons of algae remove one ton of CO_2. Once the algae are harvested, they can be converted to generate commercially viable byproducts such as ethanol or biodiesel.

- Hydrogen power with carbon capture and storage

Edison Mission Group (EMG) and BP are planning a new $1-billion hydrogen-fueled power plant in California that would generate 500 MW of low-carbon generation. EMG and BP hope to bring the new power plant online by 2011. This project would eliminate four to five million tons of CO_2 per year from the atmosphere by sequestering it underground. Petroleum coke would first be converted to hydrogen and CO_2 gases and around 90 percent of the CO_2 captured and separated. The hydrogen gas stream would be used to fuel a gas turbine to generate electricity. The captured CO_2 would be transported by pipeline to an oilfield and injected into reservoir rock formations thousands of feet underground, both stimulating additional oil production and permanently trapping the CO_2.

- Methane Reduction

The AES Corporation has formed a joint venture with AES AgriVerde to deploy greenhouse gas emission reduction technology in selected countries in Asia, Europe and North Africa in the agriculture sector. By 2012, AES AgriVerde intends to create an annual production volume of 20 million metric tons of greenhouse gas emission reductions through the reduction of methane. AES AgriVerde will capture methane from agricultural and animal waste products and either destroy it or use it to generate electricity or heat, reducing net greenhouse gas emissions from the manure management process by approximately 95 percent.

- Company-specific reduction commitments

The AES Corporation plans to invest approximately $1 billion over the next three years to expand their alternative energy business and bring to market new projects and technologies to reduce or offset greenhouse gas emissions. It has created a Climate Change and Technology Development Group to focus its efforts in the area of GHG offset production through a variety of offset activities. The company's strategy includes developing projects in the agricultural, reforestation, landfill gas and coal mine methane emission reduction sectors. AES also has entered into strategic partnerships with Los Alamos National Laboratory and XL TechGroup to identify, evaluate and bring to market new technologies in the alternative energy area.

BP Alternative Energy estimates that, by 2015, they will eliminate 24 million metric tons annually of CO_2. That's the equivalent of making a city the size of Chicago virtually emissions-free. BP plans to invest $8 billion in their low and zero-carbon energy business over the next ten years, including solar, wind, hydrogen power plants with associated carbon capture and storage, and gas-fired power generation.

Calpine Corporation has set a goal, by 2008, to reduce its greenhouse gas (GHG) efficiency-based emissions rate (pounds of GHG emitted/megawatt-hour of electricity generated) by four-percent from 2003 levels. Compared to the average fossil-fueled power plant in the United States, Calpine's combined-cycle, natural gas-fired units on average release nearly 54 percent less carbon dioxide. In addition, Calpine voluntarily agreed to certification of its inventory, which it reports to the EPA, by an independent qualified third party.

Exelon is committed to reducing its GHG emissions by 8 percent below 2001 levels by year-end 2008. They have also committed to work with and encourage our suppliers to reduce their GHG emissions.

NRG Energy, Inc. plans to develop approximately 10,500 megawatts (MW) of new generation capacity over the next decade. This repowering initiative represents a total investment of $16 billion and includes nuclear, wind and IGCC developments. With this repowering initiative, NRG plans to reduce the carbon intensity of NRG's baseload fleet by 20 to 25 percent.

- Nuclear programs

Constellation Energy and Exelon, along with seven other power companies and two reactor vendors, formed the NuStart Energy Development consortium and is implementing a project, co-funded by the U.S. Department of Energy, to demonstrate the new process for obtaining a streamlined combined construction and operating license (COL) for advanced nuclear power reactors. In September 2005, NuStart announced Grand Gulf in Mississippi and Bellefonte in Alabama as the selected sites for the COL. Site characterization is now in progress. NuStart expects to develop a formal COL application(s) and submit it to the NRC in 2008. It is anticipated that the NRC will award COL(s) around 2011.

Since 1999, Exelon has added over 1,000 megawatts (MW) of nuclear capacity through uprates and efficiency projects – enough to serve more than 1 million average residential customers. By the end of 2006, Exelon plans to add an additional 44 megawatts (MW) through uprates at its nuclear reactors.

NRG Energy, Inc. has announced plans to construct 2,700 MW of new nuclear capacity.

- Renewable energy programs

AES currently operates over 600 MW of wind facilities and is pursuing another 3,300 MW of wind projects in the United States and Europe. In 2006, the Company announced plans to triple its investment in wind generation over the next three years, and is exploring wind projects in North America, Europe, China, India and Central and South America.

AES is a leading company in biomass conversion internationally. At AES Kilroot in Northern Ireland, the team recently completed a successful trial to convert the plant to burn a mixture of coal and biomass. With further investment in the technology, almost half of Northern Ireland's 2012 renewable target could be met from AES Kilroot alone.

BP Solar designs, manufactures and markets solar electric systems for a wide range of applications in the residential, commercial and industrial sectors. BP will have a 200MW global production capacity by the end of 2006 and plans to increase solar sales threefold in 3 years. In California, New Jersey and Long Island, BP Solar Homes Solution® enables customers to purchase a complete home system through The Home Depot stores. In July 2006, BP announced Mono2, a new silicon growth process that significantly increases cell efficiency over traditional multi-crystalline based solar cells. BP Solar is also the title sponsor of the Biennial Solar Decathlon in Washington, DC.

Through strategic alliances and company acquisitions, BP Alternative Energy has acquired options to develop some 8,500 MW of windpower in the United States. BP aims to grow its wind business from its current base of 30MW to more than 450MW in 2008.

Calpine currently operates 750 MW of geothermal resources, the largest portfolio of geothermal assets in the country. Calpine owns 19 of the 21 plants at The Geysers in Northern California, the largest complex of geothermal power plants in the world. The Geysers accounts for one-fourth of the non-hydro green power produced in California. Recognizing the importance of The Geysers as a renewable resource, Calpine is developing programs that expand and enhance this unique area.

The Edison Mission Group and its affiliates currently have about 650 MW of wind power projects in service or being constructed. That number will increase to 1,000 MW by the end of 2007.

Exelon Generation has long-term power purchase agreements with four wind generation projects in Pennsylvania and West Virginia, providing a total wind capacity of 153 MW. Exelon's PECO WIND is an environmentally-friendly power option provided by PECO and wind energy marketer Community Energy, Inc., of Wayne, Pa. By the end of 2005, the number of customers exceeded 22,000. In 2005 PECO Wind customers purchased 43 million kWh of wind-generated electricity, the environmental equivalent of planting more than 3 million trees or not driving 41 million miles.

Exelon Power is in the final year of a two-year project to convert an oil-fired plant into a clean operating, reliable and efficient generating station through the use of improved technology and production methods. As a result of this project, the two-unit 60 MW Fairless Hills Generating Station will be the second-largest landfill gas generating station in the U.S.; a substantial renewable energy project able to consume 100% of the landfill gas that Waste Management produces at their nearby GROWS and Tulleytown landfills; and a significant contributor to Exelon's greenhouse gas reduction target through its consumption of landfill gas that would otherwise have been flared. Exelon Power also operates the 6 MW Pennsbury plant in southeastern Pennsylvania that utilizes landfill gas to generate electric power.

NRG Energy, Inc. has started "ecoNRG," an ongoing environmental business effort targeted at achieving continuous environmental innovation and improvement. As part of this initiative, NRG recently acquired Padoma Wind Power, LLC, which has led the development, financing, construction and operation of more than 40 wind farms in the United States and Europe comprising over 1,300 MW of installed capacity. Their projects under active development include over 500 MW of new wind generation in California, Texas and New Mexico.

PPM Energy now owns or operates 1,405 MW of wind projects throughout the United States. The company already has another 857 MW currently approved or under construction and has set a goal of having 3,500 MW of wind assets by 2010.